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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,535	07/19/2000	Dr. Werner Groh	032745-020	2257
21839	7590	10/06/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			SALVATORE, LYNDA	
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ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

1771

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,535

Applicant(s)

GROH ET AL.

Examiner

Lynda M Salvatore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-15, 17-21 and 23-43 is/are pending in the application.
- 4a) Of the above claim(s) 19-21 and 23-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 40-43 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 06/24/04 has been fully considered and entered. Claims 16,19, 37-39, and 40 have been amended and claim 22 has been canceled as requested. However, despite this advance, Applicant's amendments are not found patentably distinguishable over the prior art of record and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 3-9, 14,15,17 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Hiers, RE 33,023.

Applicant argues a lack of motivation to combine the references of Baravian et al., and Hiers. Specifically, Applicant contends that the laminates taught by the references disclose only two layer laminates rather than the laminates set forth in instant claims 3,7, and 8. Applicant further contends that the glass fiber layer is not consolidated and the needling taught by the combination of Baravian et al., in view of Hiers does not meet the limitation of joining the instantly claimed glass non-woven and synthetic non-woven by needling such that a portion of the fibers of the synthetic non-woven layer passes through glass non-woven layer. These arguments are not found persuasive. With respect to the Applicant's argument that the references teach only two layer laminates, and no motivation exists to combine the above aforementioned references to form the three layer structures set forth in claims 3,7, and 8, the Examiner respectfully points out that

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Baravian et al., alternatively teaches a three layer reinforcement structure though it may not be exemplified or preferred (Column 2, 7). The Examiner maintains that in light of such a teaching, motivation to modify the two layer laminate structure of Baravian et al., with the teachings of Heirs exists. Recall, Hiers teaches a three layer structure comprising a glass batt disposed between two synthetic organic textile layers (Figure 2, Column 6, 5-17 and 60-69). Heirs specifically teaches this three layer arrangement to avoid the health risks associated with glass fiber breakage during the needling process (Column 3, 32-36, 55-58, and Column 45-28).

With regard to Applicant's argument that the glass fiber layer taught in Baravian et al., is not consolidated, the Examiner respectfully points out that claim 1 recites the limitation of a non-woven mat containing glass staple fiber pre-consolidated with a resin. To that end, the Examiner is of the position that Baravian et al., meets said limitation with the disclosure of providing a second mineral layer in the form of a scrim of mineral fibers formed by wet or dry non-woven processes, more particularly discontinuous glass fibers with chemical or thermal bonding (Column 3, line 65-Column 3, line 5). To reiterate, it is the position of the Examiner that chemical bonding is interpreted as any type of resinous based binder.

With regard to Applicant's argument that the combination of references fails to teach needling such that a portion of the synthetic fibers passes through the glass non-woven such that protruding fibers serve to "inter-lock" the layers together, the Examiner respectfully points out that Applicant has not limited the degree of needling to "inter-lock". Moreover, though Baravian et al., does not explicitly teach specific needling embodiments or the degree of needling, it would be improper to ignore the disclosure

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directed to needle bonding regardless if the method it is not exemplified. The fact remains that Baravian et al., teaches needle bonding as a means to join the two layers together. The Examiner maintains that needling inherently passes fibers through the layers. To substantiate the Examiner's supposition, the reference of Heirs was provided as evidence. Recall, the patent issued to Hiers teaches needling a glass fiber batt and an organic fiber batt together to form a composite such that resulting layers are substantially non-detachable from each other and from an integral composite fabric (Column 4, 39-45). The Examiner would also like to call attention to figure 2 of the Hiers patent, which clearly illustrates needle penetration through all of the layers such that the layers are bound together at the respective inner surfaces (Figure 2, Column 5, 20-35).

4. Claims 2, 12 and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Hiers, RE 33,023 applied to claim 1 above, and further in view of Heidel et al., US 5,171,629.

The rejection above is maintained and Applicant has not provided any new arguments for which to consider.

Allowable Subject Matter

5. Applicant disagrees with the Examiner's interpretation of claim 10. Specifically, Applicant argues that the specification indicates that the synthetic fibers may be pre-consolidated after formation of the non-woven. While limitations from the specification cannot be imported into the claims, the reason for allowance given in the last Office Action is no longer valid. If, by Applicant's admission, the fibers of the non-woven layer can be shrunken at any time, and the reference to Baravian et al., teaches a thermo-stabilized non-woven needled to a glass fiber layer, there is nothing to distinguish the

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final products. In other words, the scope of the claim seems to encompass the articles of the prior art. As such the allowability of claim 10 is hereby withdrawn.

6. In addition, previously allowed claim 10 is rejected 35 U.S.C. 103(a) as being unpatentable over Baravian et al., US 5,616,395 in view of Hiers, RE 33,023 as applied to claim 1 above.

With specific regard to claim 10, the patent issued to Baravian et al., teaches a two-layer textile reinforcement comprising a thermostabilized consolidated non-woven first base layer needled to a second mineral fiber layer, which may in the form of a grid, scrim or cloth of continuous or discontinuous mineral filaments (Abstract). Baravian et al., teaches the application of heat to consolidate the non-woven and preferably comprises a sheet of continuous filaments of a thermoplastic synthetic polymer, having no binder fibers, such as a polyester, co-polyester, or polyamide (Column 2, 63-65 and Column 3, 45-55). Thus it is the position of the Examiner that calendaring a synthetic non-woven sheet under heat and pressure would effectively heat shrink or "thermally pre-consolidate" the fibers comprising the non-woven layer (Column 3, 1-5).

5. With regard to claims 40-42, the prior art of record fails to teach the addition of reinforcement materials. An updated art search did not produce any new substantial art for which to base a rejection and presently there is no motivation to combine references to form an obvious type rejection.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 2, 2004

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